CLAIMS

1. A method for producing a metal filter comprising:

a lamination step of laminating a photosensitive resin composition on a copper substrate to form a photosensitive resin composition layer;

an exposure step of irradiating a predetermined portion of the photosensitive resin composition layer with an active light and light-curing the exposed portion to form a cured material of the photosensitive resin composition;

a development step of removing a portion other than the cured material of the photosensitive resin composition of the photosensitive resin composition layer by development to form a resist pattern composed of the cured material of the photosensitive resin composition on the copper substrate;

a plating step of metal plating the resist-patterned copper substrate to form a plated layer;

a dissolution step of removing the copper substrate with chemical dissolution to obtain a structure composed of the plated layer and the cured material of the photosensitive resin composition; and

a stripping step of removing the cured material of the photosensitive resin composition from the structure to obtain the plated layer;

wherein the plated layer is the metal filter.

2. The method for producing a metal filter according to claim 1, wherein the metal filter has a plurality of through-holes, and wherein the opening shape of the through-hole is one or more shapes selected from

the group consisting of circle, ellipse, rounded rectangle, rectangle, and square.

3. The method for producing a metal filter according to claim 1 or 2, wherein the opening shape of the through-hole comprises a rectangular or rounded-rectangular shape, and wherein the length of the short side of the rectangle or rounded rectangle is 5 to 15 μm.

4. The method for producing a metal filter according to any one of claims 1 to 3, wherein the metal filter is of a thickness of 3 to 50 μm.

5. The method for producing a metal filter according to any one of claims 1 to 4, wherein the copper substrate is peelable copper foil.

6. The method for producing a metal filter according to any one of claims 1 to 5, wherein the metal filter is a metal filter for concentration of cancer cells.

7. The method for producing a metal filter according to claim 6, wherein the metal filter for concentration of cancer cells is a metal filter for concentration of cancer cells circulating in blood.

8. The method for producing a metal filter according to any one of claims 1 to 7, wherein the thickness of the plated layer is thinner than the thickness of the photosensitive resin composition layer.

CLAIMS

1. A method for producing a metal filter comprising:

a lamination step of laminating a photosensitive resin composition on a peelable copper foil to form a photosensitive resin composition layer;

an exposure step of irradiating a predetermined portion of the photosensitive resin composition layer with an active light and light-curing the exposed portion to form a cured material of the photosensitive resin composition;

a development step of removing a portion other than the cured material of the photosensitive resin composition of the photosensitive resin composition layer by development to form a resist pattern composed of the cured material of the photosensitive resin composition on the peelable copper foil;

a plating step of metal plating the resist-patterned peelable copper foil to form a plated layer;

a dissolution step of removing the peelable copper foil with chemical dissolution to obtain a structure composed of the plated layer and the cured material of the photosensitive resin composition; and

a stripping step of removing the cured material of the photosensitive resin composition from the structure to obtain the plated layer;

wherein the plated layer is the metal filter.

2. The method for producing a metal filter according to claim 1, wherein the metal filter has a plurality of through-holes, and wherein the opening shape of the through-hole is one or more shapes selected from

the group consisting of circle, ellipse, rounded rectangle, rectangle, and square.

3. The method for producing a metal filter according to claim 1 or 2, wherein the opening shape of the through-hole comprises a rectangular or rounded-rectangular shape, and wherein the length of the short side of the rectangle or rounded rectangle is 5 to 15 μm.

4. The method for producing a metal filter according to any one of claims 1 to 3, wherein the metal filter is of a thickness of 3 to 50 μm.

5. The method for producing a metal filter according to any one of claims 1 to 4, wherein the metal filter is a metal filter for concentration of cancer cells.

6. The method for producing a metal filter according to claim 5, wherein the metal filter for concentration of cancer cells is a metal filter for concentration of cancer cells circulating in blood.

7. The method for producing a metal filter according to any one of claims 1 to 6, wherein the thickness of the plated layer is thinner than the thickness of the photosensitive resin composition layer.